Remarks

Claims 1-18 are pending. Claims 6-17 are withdrawn from consideration as being directed to a nonelected invention. Therefore, claims 1-5 and 18 are presently under examination. Claim 1 has been amended. No new matter has been added.

Section 112, second paragraph, Rejection (Indefiniteness)

The Examiner has rejected Claims 1-5 and 18 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner alleges that Claim 1 is indefinite in the recitation of "ubiquitin conjugating enzyme homologue". Applicants have amended Claim 1 to clarify that the invention is a ubiquitin conjugating enzyme polypeptide. The Examiner alleges that Claim 1 (e) and (f) are confusing with respect to the terms "minus" and "including" as set forth in the Office Action. Applicants note that this is due to a typographical error and the appropriate corrections have been made. Applicants appreciate the Examiner pointing out the typographical error.

Section 101 Rejection (Utility)

The Examiner has rejected Claims 1-5 and 18 under 35 U.S.C. §101 as lacking utility. This rejection is respectfully traversed.

The Examiner acknowledges that a skilled artisan would believe that the protein of SEQ ID NO:2 is a ubiquitin conjugating enzyme, but alleges that the utility set forth for this protein is neither specific nor substantial (Applicants assume that the Examiner meant SEQ ID NO:2, and not SEQ ID NO:5, at page 3, line 17 of the Office Action). This is despite the fact that the utility of ubiquitin conjugating enzymes is known. The Examiner alleges that ubiquitin conjugating enzymes comprise a highly diverse group of proteins which conjugate ubiquitin to a wide variety of different proteins with different enzymes having an enormous diversity in the specificity of substrates utilized, and concludes from this that the present invention lacks specific and substantial utility. Applicants respectfully submit that this is not the standard for determining utility.

As SEQ ID NO:2 clearly sets forth a ubiquitin conjugating enzyme (as acknowledged by the Examiner), Applicants submit that this is sufficient to establish Section 101 utility of the invention. The fact that *arguendo* the class of compounds to which the invention belongs is diverse is not relevant in determining if the present invention has specific and substantial utility in accordance with the PTO's interpretation of Section 101. The requirement for specific and substantial utility is meant to exclude "throw-away" utilities which are unrelated to the "real-world" use of the invention. This is clearly not the case with the present invention. To the contrary, the present specification sets forth several "real-world" utilities which are directly related to known uses of ubiquitin conjugating

enzymes that one skilled in the art would readily ascribe to the present invention. As noted by the Examiner, these utilities include "diagnosis, treatment or prevention of cancers and tumors, or immune, lymphoproliferative, or neurodegenerative disorders". Whether or not a skilled artisan would further experiment to determine advantageous manners of using the present invention (i.e., for diagnostic purposes, therapeutic purposes, etc.) is not relevant to determining Section 101 utility. The fact that a skilled artisan would know to use the present invention for those purposes for which ubiquitin conjugating enzymes are used is what is relevant.

For these reasons, Applicants respectfully submit that the present invention satisfies Section 101 and withdrawal of the outstanding rejection is appropriate and respectfully requested.

Section 112, first paragraph, Rejection (Written Description)

The Examiner has rejected Claims 1-5 and 18 under 35 U.S.C. §112, first paragraph, as lacking written description. The Examiner alleges that the claims are directed to a genus of DNA molecules encoding any ubiquitin conjugating enzyme in view of the recitation in Claim 1, part (a) of ubiquitin conjugating enzymes comprising any fragment of SEQ ID NO:2, as all ubiquitin conjugating enzymes will comprise at least one or more amino acids present in SEQ ID NO:2.

Applicants respectfully submit that this rejection is obviated in view of the present amendments. Accordingly, withdrawal of this rejection is appropriate and is respectfully requested.

Section 112, first paragraph, Rejections (Enablement)

The Examiner has rejected Claims 1-5 and 18 under 35 U.S.C. §112, first paragraph, as lacking enablement. The Examiner acknowledges that the specification enables polynucleotides encoding SEQ ID NO:2, but alleges that it fails to provide enablement for polynucleotides encoding fragments of SEQ ID NO:2.

Applicants respectfully submit that this rejection is obviated in view of the present amendments. Accordingly, withdrawal of this rejection is appropriate and is respectfully requested.

The Examiner has also rejected Claims 1-5 and 18 under 35 U.S.C. §112, first paragraph, as lacking enablement alleging that the deposit has not been made in accordance with 37 C.F.R. §1.801-1.809. In reply, Applicants representative states the following:

Public Access to ATCC Deposit No. PTA-3745

Applicants representative hereby gives the following assurance by signature below:

Bristol-Myers Squibb Company, an assignee of the present application, has deposited biological material under the terms of the Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure with the following International

Depository Authority: American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, Virginia 20110-2209. This deposit comprises cDNA sequences encoding the RATL1d6 polypeptide of the present invention. The deposit for RATL1d6 was made on October 1, 2001 and given ATCC Accession Number PTA-3745. In accordance with MPEP 2410.01 and 37 C.F.R. §1.808, assurance is hereby given that all restrictions on the availability to the public of ATCC Accession Number PTA-3745 will be irrevocably removed upon the grant of a patent based on the captioned application, except as permitted under 37 C.F.R. § 1.808(b).

A copy of the ATCC Deposit receipt for Accession Number PTA-3745 is enclosed herewith as **Appendix A.**

Section 102 Rejection

The Examiner has rejected Claims 1-5 under 35 U.S.C §102(b) as being anticipated by WO 99/46375 ("Specht"). The Examiner alleges that Specht teaches a nucleic acid (SEQ ID NO:217) which is identical to residues 587-2251 of SEQ ID NO:1 of the instant application with the exception of the insertion of a G following residue 671 and a single mismatch at residue 2239.

Applicants respectfully submit that this rejection is obviated in view of the present amendments. Accordingly, withdrawal of this rejection is appropriate and is respectfully requested.

Section 103 Rejection

The Examiner has rejected Claim 18 under 35 U.S.C §103(a) as being unpatentable over Specht. The Examiner alleges that Specht teaches the use of the disclosed nucleic acid molecules as a probe, and it therefore would have been obvious to make a kit containing the components necessary for the detection of such nucleic acids by a hybridization assay. For the reasons set forth above, Specht does not teach or suggest the present invention. Therefore, it clearly would not have been obvious for one skilled in the art to use the teachings of Specht to make a kit of the present invention.

Accordingly, Applicants respectfully submit that withdrawal of this rejection is appropriate and is respectfully requested.

IDS References

Applicants acknowledge that the references noted by the Examiner at page 11 of the Office Action have not been considered for the stated reasons. Applicants will file a Supplemental IDS accordingly.

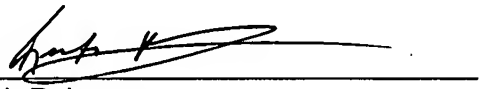
Conclusion

In view of the remarks made herein, Applicants respectfully submit that the claims are in condition for allowance and favorable action is therefore respectfully requested.

Please direct any questions concerning this Response or any aspect of this case to the undersigned attorney.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 19-3880 in the name of Bristol-Myers Squibb Company.

Respectfully submitted,



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